OMNY: New York MTA's New Contactless Payment Platform

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The Takeaway

New York City's Metropolitan Transportation Authority (MTA) is currently rolling out OMNY, a new contactless payment platform that initially allows riders of buses and subways to pay for transit with the tap of a credit card, debit card, or smart phone when they board. Until 2023, riders will retain the option of paying fares with a magnetic stripe MetroCard, but MTA envisions OMNY becoming the dominant form of regional fare collection as additional functionalities and fare products (e.g., mobile ticketing app; time-based transit passes; application on commuter railroads) are layered onto the system. OMNY could ultimately integrate with other public and private mobility systems as well.

Benefits from OMNY are projected to include faster boarding, a simpler customer payment experience, fewer cash payments, the potential for innovative fare policy (e.g., fare capping), and easier integration across various forms of public (and potentially private) transportation networks. An additional benefit has come to light during the pandemic: the contactless OMNY system, in conjunction with the MTA's aggressive cleaning and disinfecting efforts, lets customers know that their well-being is a priority.

The Setting

MTA, the largest transit agency in the United States, serves riders in New York City as well as suburbs in New York State and Connecticut. On an average weekday in 2019, nearly 8.3 million riders utilized MTA's bus, subway, and commuter rail services. Other important public transportation services in the New York area include PATH trains, New Jersey Transit, the NICE bus system on Long Island, Westchester Bee Line buses and CitiBike (owned by Lyft and overseen by New York City's Department of Transportation).

Since 1994, MTA riders have paid for rides by swiping their MetroCard, a magnetic stripe card, when they board transit. A contactless payment system offers potential for a simplified user experience by removing the need to wait at a vending machine or at a station booth, and without frustrating "misswipes" that occur when a turnstile fails to recognize a swiped MetroCard. Furthermore, contactless payments could shorten bus boarding times and facilitate all-door boarding, which would make total trip times shorter. MTA also envisions contactless payments reducing the \$1.5 billion in transit fares that it collected in cash in 2019 (13 percent of which is spent on processing), as well as the cash collected by its commuter railroads.

In the early 2000s, MTA ran trials of contactless payments on several subway stations in Manhattan. These pilots affirmed the technology's potential, and in 2016 MTA began planning to sunset the MetroCard and replace it with a contactless system. This would be no small task; MTA would have to redesign its payment system to be account-based—allowing each passenger to maintain his or her own "digital payment account" — while installing near-field communications payment terminals and optical scanners throughout its network. Cubic Transportation Systems received a \$500 million contract to build this system, which would ultimately be called OMNY (short for One Metro New York).

The Project

The OMNY program went live on May 31, 2019, with contactless payments available at 16 stations on the Lexington Avenue (4/5/6) subway line as well as on Staten Island buses. Instead of using a MetroCard, passengers could pay a standard \$2.75 fare by tapping their smart phone (with Apple Pay or Google Pay activated), or a credit or debit card with an embedded contactless chip. An OMNY user pays the same fare as someone using a value-based MetroCard). OMNY's backend also recognizes a transfer (e.g., a boarding tap on a bus within two hours of a tap from entering the subway) and does not charge the passenger another fare.

Passengers do not need to download an app or sign up to use it; they can simply tap and go. As of September 30, 2020, OMNY is available in 75 percent of MTA's 472 subway stations, but only as an option for full-fare trips. It is also available on all bus routes in two of the city's five boroughs: Manhattan and Staten Island.

By the end of 2020, MTA expects OMNY to be available on all buses and at subway stations throughout New York City. Those without a smart phone, credit card, or debit card will be able to use a physical OMNY card, which will be available next year for purchase at some 4,000 retail stores throughout the city. In 2021, MTA plans to expand OMNY to commuter rail (Long Island Rail Road and Metro-North Railroad) and to release a mobile app that will allow

passengers to purchase a single ticket or a time-based pass. Once OMNY is completed for MTA services, officials will offer it to other interested transportation providers across the region. MetroCard is slated to be retired in 2023.

Outcomes

As of September 2020, MTA reports that the OMNY project—costing \$640 million overall—is on schedule and under budget. In February 2020 (prior to the emergence of the coronavirus) about 150,000 trips per weekday were taken with OMNY taps, out of 8 million total daily trips. Around 70 percent of OMNY payments are by mobile phone, with the remainder by debit or credit card. Those numbers are expected to change in 2021 when the physical OMNY card is introduced.

The sequencing of the phases (open-loop, "bring your own fare media" transactions first; then introduction of a physical OMNY card, but out of system; followed by installation of new, configurable vending machines in stations) is designed to maximize customer use of what they already have in their pockets and to minimize the production and distribution costs associated with the closed-loop OMNY card.

MTA does not yet have data about changes in bus dwell times or ridership attributable to OMNY, but the agency will be monitoring these metrics in the future.

Lessons Learned

Al Putre, the Executive Director of the OMNY Fare Payment Program, cautions that implementation of a project of this scale will inevitably encounter unforeseen challenges. Overcoming them requires a close working relationship between the transit agency and the partner building the payment system. "Had we simply hired a vendor and told them to deliver a turnkey solution, we'd have had a recipe for failure," he says.

Documents Available

- The New Fare Payments System (NFPS) Agreement between the MTA and Cubic (Terms and Conditions).
- NFPS Technical Specifications (Tech Spec)
- NFPS Tech Spec Definitions

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